

**IN THE CLAIMS**

**Please amend the claims as follows:**

Claim 1 (Currently Amended): A ceramic filter assembly comprising:

major and minor axes;

~~and~~ a plurality of columnar honeycomb filters adhered together[[,]];

the plurality of columnar honeycomb filters being made of a porous ceramic sintered material with a ceramic sealing material layer and having end faces and a generally elliptical cross sectional shape when cut parallel to the end faces of the plurality of honeycomb filters[[,]];

the plurality of honeycomb filters including a honeycomb filter having a rectangular cross sectional shape when cut parallel to the end faces and provided with a long side having a length B1 and a short side having a length B2 in which the ratio B1/B2 is between 1.1 and 3.0[[,]]; and

the honeycomb filter being arranged so that the long side and the short side of the honeycomb filter are respectively parallel to the major axis and the minor axis of the assembly.

Claim 2 (Currently Amended): A ceramic filter assembly comprising:

major and minor axes;

~~and~~ a plurality of columnar honeycomb filters adhered together[[,]];

the plurality of columnar honeycomb filters being made of a porous ceramic sintered material with a ceramic sealing material layer and having end faces and a generally elliptical cross sectional shape when cut parallel to end faces of the plurality of honeycomb filters[[,]];

each honeycomb filter including a plurality of rectangular cells extending along an axis of the filter with each cell provided with a long side having a length C1 and a short side having a length C2 in which the ratio C1/C2 is  $[[30]]$  between 1.1 and 3.0 $[[,]]$ ; and

the plurality of honeycomb filters being arranged so that the long sides of the cells are parallel to the major axis of the assembly and the short sides of the cells are parallel to the minor axis of the assembly.

Claim 3 (Currently Amended): A ceramic filter assembly comprising:

major and minor axes;

~~and~~ a plurality of columnar honeycomb filters adhered together $[[,]]$ ;

the plurality of columnar honeycomb filters being made of a porous ceramic sintered material with a ceramic sealing material layer and having end faces and a generally elliptical cross sectional shape when cut parallel to the end faces of the plurality of honeycomb filters $[[,]]$ ;

each honeycomb filter including an axis and a plurality of rectangular cells extending along the axis of the filter and defined by relatively thick cell walls and relatively thin walls that are orthogonal to each other $[[,]]$ ; and

the plurality of honeycomb filters being arranged so that the relatively thick cell walls are parallel to the major axis of the assembly and the relatively thin cell walls are parallel to the minor axis of the assembly.

Claim 4 (Previously Presented): The ceramic filter assembly as claimed in claim 3, wherein when the thickness of the relatively thick cell walls is represented by D1 and the thickness of the relatively thin cell walls is represented by D2, D1 and D2 are within a range of 0.1 to 0.5 mm, and the ratio D1/D2 is 3 or less.

Claim 5 (Currently Amended): A ceramic filter assembly comprising:

a major axis;

~~and~~ a plurality of columnar honeycomb filters including outer surfaces adhered together[[,]];

the plurality of columnar honeycomb filters being made of a porous ceramic sintered material with a ceramic sealing material layer and having end faces and a generally elliptical cross sectional shape when cut parallel to the end faces of the plurality of honeycomb filters[[,]]; and

the ceramic sealing material layer including,

a first sealing material layer extending parallel to the major axis of the assembly, and

a second sealing material layer extending orthogonal to the major axis of the assembly, ~~with~~ wherein the first sealing material layer ~~being~~ is thicker than the second sealing material layer.

Claim 6 (Previously Presented): The ceramic filter assembly as claimed in claim 5, wherein when the thickness of the first sealing material layer is represented by E1 and the thickness of the second sealing material layer is represented by E2, E1 and E2 are between 0.3 mm to 3 mm, and the ratio E1/E2 is 1.05 or greater and 5 or less.

Claim 7 (Currently Amended): A ceramic filter assembly comprising:

a major axis;

~~and~~ a plurality of columnar honeycomb filters adhered together[[,]];

the plurality of columnar honeycomb filters being made of a porous ceramic sintered material with a ceramic sealing material layer and having end faces and a generally elliptical

cross sectional shape when cut parallel to the end faces of the plurality of honeycomb filters[[,]]; and

the ceramic sealing material layer including,

a first sealing material layer parallel to the major axis of the assembly, and

a second sealing material layer orthogonal to the major axis of the assembly, the first sealing material layer having thermal conductivity that is lower than the thermal conductivity of the second sealing material layer.

Claim 8 (Previously Presented): The ceramic filter assembly as claimed in claim 7, wherein when the thermal conductivity of the first sealing material layer is represented by G1 and the thermal conductivity of the second sealing material layer is represented by G2, the ratio G1/G2 is 0.2 or greater and 0.7 or less.

Claim 9 (Currently Amended): A ceramic filter assembly comprising:

an outer periphery, major, and minor axes; [[,]]

~~and~~ a plurality of columnar honeycomb filters adhered together[[,]]; and

the plurality of columnar honeycomb filters being made of a porous ceramic sintered material with a ceramic sealing material layer made of ceramic and having end faces and a generally elliptical cross sectional shape when cut parallel to the end faces of the plurality of honeycomb filters[[,]]; ~~and~~

an outer sealing material layer made of ceramic and formed on the periphery of the assembly[[,]]; and

the outer sealing material layer including a first portion located along an extension of the major axis of the assembly that is thicker than a second portion located along an extension of the minor axis of the assembly.

Claim 10 (Previously Presented): The ceramic filter assembly as claimed in claim 9, wherein when the thickness of the first portion is represented by  $H1$  and the thickness of the second portion is represented by  $H2$ , the ratio  $H2/H1$  is 0.06 or greater and 0.95 or less.

Claim 11 (Previously Presented): The ceramic filter assembly as claimed in claim 9, wherein the outer sealing material layer is formed from two or more types of a coating material having different thermal conductivity.

Claim 12 (Previously Presented): A canning body comprising:  
a ceramic filter assembly including major and minor axes and a plurality of columnar honeycomb filters adhered together, the plurality of columnar honeycomb filters being made of a porous ceramic sintered material with an inner sealing material layer made of ceramic and having end faces and a generally elliptical cross sectional shape when cut parallel to the end faces of the plurality of honeycomb filters;

a tubular casing for accommodating the ceramic filter assembly; and

a thermal insulation material arranged between the casing and the ceramic filter assembly, the thermal insulation material including a first portion located along an extension of the major axis of the assembly and a second portion located along an extension of the minor axis of the assembly, wherein the first portion is thicker than the second portion.

Claim 13 (Previously Presented): The canning body as claimed in claim 12, wherein when the thickness of the first portion is represented by  $I1$  and the thickness of the second part is represented by  $I2$ , the ratio  $I2/I1$  is 0.30 or greater and 0.91 or less.

Claim 14 (Original): The canning body as claimed in claim 12, wherein the thermal insulation material is made of two or more types of material having different thermal conductivity.

Claims 15-16 (Canceled).

Claim 17 (Currently Amended): A columnar honeycomb filter comprising:  
~~an axial direction and~~ a plurality of rectangular cells extending along ~~[[the]]~~ an axial direction of the honeycomb filter~~[[,]]~~;

each rectangular cell being defined by a relatively thick cell wall and a relatively thin cell wall that are orthogonal to each other, and being made of a porous ceramic sintered material; and

the relatively thick cell walls having a uniform wall thickness and the relatively thin cell walls having a uniform wall thickness.

Claim 18 (Previously Presented): The columnar honeycomb filter as claimed in claim 17, wherein when the thickness of the relatively thick cell wall is represented by D1 and the thickness of the relatively thin cell wall is represented by D2, the ratio D1/D2 is 3 or less.

Claim 19 (Currently Amended): The ceramic filter assembly ~~honeycomb filter~~ as claimed in claim ~~[[15]]~~ 1, wherein the porous ceramic sintered material includes silicon carbide and metal silicon.

Claim 20 (Currently Amended): The ceramic filter assembly ~~columnar honeycomb filter~~ as claimed in claim ~~[[15]]~~ 1, further comprising a catalyst.

Claim 21 (Currently Amended): A ceramic filter assembly comprising:

a plurality of columnar honeycomb filters adhered together[[,]];

the plurality of honeycomb filters being made of a porous ceramic sintered material with a ceramic sealing material layer and having end faces and a generally elliptical cross sectional shape when cut parallel to the end faces of the plurality of honeycomb filters, wherein

when a hypothetical first straight line intersects the generally elliptical contour at two points in which the distance therebetween is maximum and a hypothetical second straight line orthogonal to the first straight line intersects the generally elliptical contour at two points in which the distance therebetween is maximum, the number of sealing material layers the first straight line of the assembly traverses is less than or equal to the number of sealing material layers the second straight line traverses.

Claim 22 (Currently Amended): The ceramic filter assembly ~~honeycomb filter~~ as claimed in claim [[16]] 2, wherein the porous ceramic sintered material includes silicon carbide and metal silicon.

Claim 23 (Currently Amended): The ceramic filter assembly ~~columnar honeycomb filter~~ as claimed in claim [[16]] 2, further comprising a catalyst.

Claim 24 (Previously Presented): The honeycomb filter as claimed in claim 17, wherein the porous ceramic sintered material includes silicon carbide and metal silicon.

Application No. 10/502,044

Reply to Office Action of September 12, 2007

Claim 25 (Previously Presented): The columnar honeycomb filter as claimed in claim 17, further comprising a catalyst.